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<p>(84) Designated Contracting States: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR Designated Extension States: AL LT LV MK RO SI</p> <p>(30) Priority: 20.12.1999 JP 36153099</p>	<p>(71) Applicant: ISUZU MOTORS LIMITED Shinagawa-ku, Tokyo (JP)</p> <p>(72) Inventor: Onuki, Shigemori, Isuzu Motors Limited Kawasaki-shi, Kanagawa (JP)</p> <p>(74) Representative: Schaumburg, Thoenes & Thurn Postfach 86 07 48 81634 München (DE)</p>
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(54) **Multiple-gear vehicle transmission**

(57) A multiple-gear vehicle transmission (3) has a split gear assembly (17) on its input side, a range gear assembly (19) on its output side, and a main gear assembly (18) between them. A drive power of an engine (1) is transmitted to a propeller shaft (5) via the multiple-gear vehicle transmission (3). The split gear assembly (17) has a neutral position (N) in addition to high and low gear positions (H, L). In general, a splitter controller (9, 20) intermittently shifts the split gear assembly (17) between the neutral position (N) and high gear position (H) to intermittently lubricate various parts such as bear-

ings (61A, 61B, 61C) and synchronization mechanisms in a transmission casing (3a). By shifting the split gear assembly (17) into the high gear position, a counter shaft (32) is caused to rotate so that oil is scooped up toward the bearings by the counter shaft (32) and is also supplied to the bearings by an oil pump (35). However, when the engine (1) is started after a considerable period, the controller (9, 20) prohibits the split gear assembly (17) from being shifted into the neutral position (N) in order to continuously lubricate the bearings (61A, 61B, 61C) for a certain period. The intermittent lubrication is conducted after that.

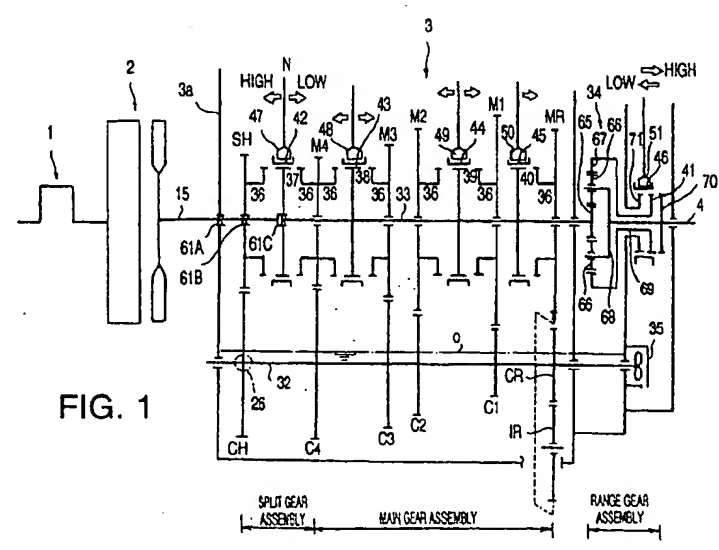


FIG. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 00 12 6870

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			F16H
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		26 March 2002	Van Prooijen, T
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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26-03-2002

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